STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

November 16, 2014

Mr. Marco A. Salenda
e-copy: marco.salenda@akzonobel.com
Akzo Nobel Surface Chemistry LLC
909 Mueller Avenue
CHattanooga, TN 37406

Subject: **Draft of NPDES Permit No. TN0002798**
Akzo Nobel Surface Chemistry LLC
Chattanooga, Hamilton County, Tennessee

Dear Mr. Salenda:

Enclosed please find a draft copy of the NPDES permit which the Division of Water Resources (the division) proposes to issue. This draft copy is furnished to you solely for your review of its provisions. This permit authorizes no wastewater discharges. The issuance of an official permit is contingent upon your meeting all of the requirements of the Tennessee Water Quality Control Act and the Rules and Regulations of the Water Quality, Oil and Gas Board.

Also enclosed is a copy of the public notice that announces our intent to issue this permit. The notice affords the public an opportunity to review the draft permit and, if necessary, request a public hearing on this issuance process. If you disagree with the provisions and requirements contained in the draft permit, you have thirty-five days from the date of this correspondence to notify the division of your objections. If your objections cannot be resolved, you may appeal this permit upon issuance. This appeal should be filed in accordance with Section 69-3-110 of the Tennessee Code Annotated.

If you have questions, please contact the Chattanooga Environmental Field Office at 1-888-891-TDEC; or, at this office, please contact Mr. Jim McAdoo at (615) 532-0684 or by E-mail at *Jim.McAdoo@tn.gov*.

Sincerely,

Vojin Janjić
Manager, Water-Based Systems

Enclosure

cc: Permit File
Chattanooga Environmental Field Office

STATE OF TENNESSEE

NPDES PERMIT

No. TN0002798

Authorization to discharge under the
National Pollutant Discharge Elimination System (NPDES)

Issued By

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

Under authority of the Tennessee Water Quality Control Act of 1977 (T.C.A. 69-3-101 et seq.) and the delegation of authority from the United States Environmental Protection Agency under the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977 (33 U.S.C. 1251, et seq.)

Discharger:	**Akzo Nobel Surface Chemistry LLC**
is authorized to discharge:	**non contact cooling water from Outfall 001 and storm water runoff from Outfall SW1**
from a facility located:	**in Chattanooga, Hamilton County, Tennessee**
to receiving waters named:	**South Chickamauga Creek at mile 0.6**

in accordance with effluent limitations, monitoring requirements and other conditions set forth herein.

This permit shall become effective on:

This permit shall expire on:

Issuance date:

Draft

for Tisha Calabrese Benton.
Director

TABLE OF CONTENTS

JCM

TN0002798.DOC

PART I

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

Akzo Nobel Surface Chemistry LLC is authorized to discharge non contact cooling water from Outfall 001 and storm water runoff from Outfall SW1 to South Chickamauga Creek at mile 0.6.

These discharges shall be limited and monitored by the permittee as specified below:

Description : External Outfall, Number : 001, Monitoring : Effluent Gross, Season : All Year

Parameter	Qualifier	Value	Unit	Sample Type	Frequency	Statistical Base
Flow	Report	-	MGD	Instantaneous	Monthly	Daily Maximum
Flow	Report	-	MGD	Instantaneous	Monthly	Monthly Average
Temperature, water deg. C	Report	-	deg C	Grab	Monthly	Daily Maximum
pH	>	6	SU	Grab	Monthly	Minimum
pH	<	9	SU	Grab	Monthly	Maximum

Parameter	Qualifier	Value	Unit	Sample Type	Frequency	Statistical Base
IC25 Static Renewal 7 Day Chronic Ceriodaphnia	>=	4.9	%	Composite	Annual	Minimum
IC25 Static Renewal 7 Day Chronic Pimephales	>=	4.9	%	Composite	Annual	Minimum

Description : External Outfall, Number : SW1, Monitoring : Effluent Gross, Season : All Year

Parameter	Qualifier	Value	Unit	Sample Type	Frequency	Statistical Base
Flow	Report	-	MGD	Estimate	Semiannual	Daily Maximum
Nitrogen, total (as N)	Report	-	lb/d	Grab	Semiannual	Daily Maximum
Nitrogen, total (as N)	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Oil & Grease	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Oxygen demand, chem. (high level) (COD)	Report	-	lb/d	Grab	Semiannual	Daily Maximum
Oxygen demand, chem. (high level) (COD)	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Phosphorus, total (as P)	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Total Suspended Solids (TSS)	Report	-	mg/L	Grab	Semiannual	Daily Maximum
pH	Report	-	SU	Grab	Semiannual	Maximum

Additional monitoring requirements and conditions applicable to Outfall 001 include:

There shall be no distinctly visible floating solids, scum, foam, oily slick, or the formation of slimes, bottom deposits or sludge banks of such size or character that may be detrimental to fish and aquatic life.

The wastewater discharge shall not contain pollutants in quantities that will be hazardous or otherwise detrimental to humans, livestock, wildlife, plant life, or fish and aquatic life in the receiving stream.

Sludge or any other material removed by any treatment works must be disposed of in a manner, which prevents its entrance into or pollution of any surface or subsurface waters. Additionally, the disposal of such sludge or other material must be in compliance with the Tennessee Solid Waste Disposal Act, TCA 68-31-101 et seq. and the Tennessee Hazardous Waste Management Act, TCA 68-46-101 et seq.

B. MONITORING PROCEDURES

1. Representative Sampling

Samples and measurements taken in compliance with the monitoring requirements specified herein shall be representative of the volume and nature of the monitored discharge, and shall be taken after treatment and prior to mixing with uncontaminated storm water runoff or the receiving stream.

2. Sampling Frequency

If there is a discharge from a permitted outfall on any given day during the monitoring period, the permittee must sample and report the results of analyses accordingly, and the permittee should not mark the 'No Discharge' box on the Discharge Monitoring Report form.

3. Test Procedures

a. Test procedures for the analysis of pollutants shall conform to regulations published pursuant to Section 304 (h) of the Clean Water Act (the "Act"), as amended, under which such procedures may be required.

b. Unless otherwise noted in the permit, all pollutant parameters shall be determined according to methods prescribed in Title 40, CFR Part 136, as amended, promulgated pursuant to Section 304 (h) of the Act.

In instances where permit limits established through implementation of applicable water criteria are below analytical capabilities, compliance with those limits will be determined using the detection limits described in the TN Rules, Chapter 0400-40-3-.05(8).

4. Recording of Results

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

a. The exact place, date and time of sampling;

b. The exact person(s) collecting samples;

c. The dates and times the analyses were performed;

d. The person(s) or laboratory who performed the analyses;

e. The analytical techniques or methods used, and;

f. The results of all required analyses.

5. Records Retention

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation shall be retained for a minimum of three (3) years, or longer, if requested by the Division of Water Resources.

C. DEFINITIONS

For the purpose of this permit, ***Annually*** is defined as a monitoring frequency of once every twelve (12) months beginning with the date of issuance of this permit so long as the following set of measurements for a given 12 month period are made approximately 12 months subsequent to that time.

A ***bypass*** is defined as the intentional diversion of waste streams from any portion of a treatment facility.

A ***calendar day*** is defined as the 24-hour period from midnight to midnight or any other 24-hour period that reasonably approximates the midnight to midnight time period.

A **Composite Sample**, for the purposes of this permit, is a sample collected continuously over a period of 24-hours at a rate proportional to the flow. Composite sample should be a combination of at least 8 sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24-hour period.

The ***Daily Maximum Amount***, is a limitation measured in pounds per day (lb/day), on the total amount of any pollutant in the discharge by weight during any calendar day.

The ***Daily Maximum Concentration*** is a limitation on the average concentration, in milligrams per liter (mg/L), of the discharge during any calendar day. When a proportional-to-flow composite sampling device is used, the daily concentration is the concentration of that 24-hour composite; when other sampling means are used, the daily concentration is the arithmetic

mean of the concentrations of equal volume samples collected during any calendar day or sampling period.

"Degradation" means the alteration of the properties of waters by the addition of pollutants, withdrawal of water, or removal of habitat, except those alterations of a short duration.

"***De Minimis***" - Degradation of a small magnitude, as provided in this paragraph.

(a) Discharges and withdrawals

1. Subject to the limitation in part 3 of this subparagraph, a single discharge other than those from new domestic wastewater sources will be considered de minimis if it uses less than five percent of the available assimilative capacity for the substance being discharged.
2. Subject to the limitation in part 3 of this subparagraph, a single water withdrawal will be considered de minimis if it removes less than five percent of the 7Q10 flow of the stream.
3. If more than one activity described in part 1 or 2 of this subparagraph has been authorized in a segment and the total of the authorized and proposed impacts uses no more than 10% of the assimilative capacity, or 7Q10 low flow, they are presumed to be de minimis. Where the total of the authorized and proposed impacts uses 10% of the assimilative capacity, or 7Q10 low flow, additional degradation may only be treated as de minimis if the Division finds on a scientific basis that the additional degradation has an insignificant effect on the resource.

(b) Habitat alterations authorized by an Aquatic Resource Alteration Permit (ARAP) are de minimis if the Division finds that the impacts, individually and cumulatively are offset by impact minimization and/or in-system mitigation, provided however, in ONRWs the mitigation must occur within the ONRW.

Discharge or "discharge of a pollutant" refers to the addition of pollutants to waters from a source.

Dry Weather Flow shall be construed to represent discharges consisting of process and/or non-process wastewater only.

An ***ecoregion*** is a relatively homogeneous area defined by similarity of climate, landform, soil, potential natural vegetation, hydrology, or other ecologically relevant variables.

The ***geometric mean*** of any set of values is the n^{th} root of the product of the individual values where "n" is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For the purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).

A ***Grab Sample***, for the purposes of this permit, is defined as a single effluent sample of at least 100 milliliters (sample volumes <100 milliliters are allowed when specified per standard methods, latest edition) collected at a randomly selected time over a period not exceeding 15 minutes. The sample(s) shall be collected at the period(s) most representative of the total discharge.

The ***Instantaneous Concentration*** is a limitation on the concentration, in milligrams per liter (mg/L), of any pollutant contained in the discharge determined from a grab sample taken at any point in time.

The ***monthly average amount***, shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar month when the measurements were made.

The ***monthly average concentration***, other than for *E. coli* bacteria, is the arithmetic mean of all the composite or grab samples collected in a one-calendar month period.

A ***one week period*** (or ***calendar-week***) is defined as the period from Sunday through Saturday. For reporting purposes, a calendar week that contains a change of month shall be considered part of the latter month.

Pollutant means sewage, industrial wastes, or other wastes.

A **Qualifying Storm Event** is one which is greater than 0.1 inches and that occurs after a period of at least 72 hours after any previous storm event with rainfall of 0.1 inches or greater.

For the purpose of this permit, a ***Quarter*** is defined as any one of the following three month periods: January 1 through March 31, April 1 through June 30, July 1 through September 30, or October 1 through December 31.

A ***rainfall event*** is defined as any occurrence of rain, preceded by 10 hours without precipitation that results in an accumulation of 0.01 inches or more. Instances of rainfall occurring within 10 hours of each other will be considered a single rainfall event.

A ***rationale*** (or “fact sheet”) is a document that is prepared when drafting an NPDES permit or permit action. It provides the technical, regulatory and administrative basis for an agency’s permit decision.

A ***reference site*** means least impacted waters within an ecoregion that have been monitored to establish a baseline to which alterations of other waters can be compared.

A ***reference condition*** is a parameter-specific set of data from regional reference sites that establish the statistical range of values for that particular substance at least-impacted streams.

For the purpose of this permit, ***Semi-annually*** means the same as "once every six months." Measurements of the effluent characteristics concentrations may be made anytime during a 6 month period beginning from the issuance date of this permit so long as the second set of measurements for a given 12 month period are made approximately 6 months subsequent to that time, if feasible.

A ***subecoregion*** is a smaller, more homogenous area that has been delineated within an ecoregion.

Upset means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the

reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

The term, ***washout*** is applicable to activated sludge plants and is defined as loss of mixed liquor suspended solids (MLSS) of 30.00% or more from the aeration basin(s).

Waters means any and all water, public or private, on or beneath the surface of the ground, which are contained within, flow through, or border upon Tennessee or any portion thereof except those bodies of water confined to and retained within the limits of private property in single ownership which do not combine or effect a junction with natural surface or underground waters.

The ***weekly average amount***, shall be determined by the summation of all the measured daily discharges by weight divided by the number of days during the calendar week when the measurements were made.

The ***weekly average concentration***, is the arithmetic mean of all the composite samples collected in a one-week period. The permittee must report the highest weekly average in the one-month period.

Wet Weather Flow shall be construed to represent storm water runoff which, in combination with all process and/or non-process wastewater discharges, as applicable, is discharged during a qualifying storm event.

D. ACRONYMS AND ABBREVIATIONS

1Q10 – 1-day minimum, 10-year recurrence interval
30Q5 – 30-day minimum, 5-year recurrence interval
7Q10 – 7-day minimum, 10-year recurrence interval
BAT – best available technology economically achievable
BCT – best conventional pollutant control technology
BDL – below detection level
BOD_5 – five day biochemical oxygen demand
BPT – best practicable control technology currently available
$CBOD_5$ – five day carbonaceous biochemical oxygen demand
CEI – compliance evaluation inspection
CFR – code of federal regulations
CFS – cubic feet per second
CFU – colony forming units
CIU – categorical industrial user
CSO – combined sewer overflow
DMR – discharge monitoring report
D.O. – dissolved oxygen
E. coli – Escherichia coli
EFO – environmental field office
LB(lb) - pound

IC_{25} – inhibition concentration causing 25% reduction in survival, reproduction and growth of the test organisms
IU – industrial user
IWS – industrial waste survey
LC_{50} – acute test causing 50% lethality
MDL – method detection level
MGD – million gallons per day
MG/L(mg/l) – milligrams per liter
ML – minimum level of quantification
ml – milliliter
MLSS – mixed liquor suspended solids
MOR – monthly operating report
NODI – no discharge
NOEC – no observed effect concentration
NPDES – National Pollutant Discharge Elimination System
PL – permit limit
POTW – publicly owned treatment works
RDL – required detection limit
SAR – semi-annual [pretreatment program] report
SIU – significant industrial user
SSO – sanitary sewer overflow
STP – sewage treatment plant
TCA – Tennessee code annotated
TDEC – Tennessee Department of Environment and Conservation
TIE/TRE – toxicity identification evaluation/toxicity reduction evaluation
TMDL – total maximum daily load
TRC – total residual chlorine
TSS – total suspended solids
WQBEL – water quality based effluent limit

E. REPORTING

1. Monitoring Results

Monitoring results shall be recorded monthly and submitted monthly using Discharge Monitoring Report (DMR) forms supplied by the Division of Water Resources. Submittals shall be postmarked no later than 15 days after the completion of the reporting period. A completed DMR with an original signature shall be submitted to the following address:

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
COMPLIANCE & ENFORCEMENT SECTION
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, Tennessee 37243-1102

A copy of the completed and signed DMR shall be mailed to the Chattanooga Environmental Field Office (EFO) at the following address:

STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
Chattanooga Environmental Field Office
540 McCallie Avenue, Suite 550
Chattanooga, Tennessee 37402

A copy should be retained for the permittee's files. In addition, any communication regarding compliance with the conditions of this permit must be sent to the two offices listed above.

The first DMR is due on the 15th of the month following permit effectiveness.

DMRs and any other information or report must be signed and certified by a responsible corporate officer as defined in 40 CFR 122.22, a general partner or proprietor, or a principal municipal executive officer or ranking elected official, or his duly authorized representative. Such authorization must be submitted in writing and must explain the duties and responsibilities of the authorized representative.

The electronic submission of DMR data will be accepted only if formally approved beforehand by the division. For purposes of determining compliance with this permit, data approved by the division to be submitted electronically is legally equivalent to data submitted on signed and certified DMR forms.

2. Additional Monitoring by Permittee

If the permittee monitors any pollutant specifically limited by this permit more frequently than required at the location(s) designated, using approved analytical methods as specified herein, the results of such monitoring shall be included in the calculation and reporting of the values required in the DMR form. Such increased frequency shall also be indicated on the form.

3. Falsifying Results and/or Reports

Knowingly making any false statement on any report required by this permit or falsifying any result may result in the imposition of criminal penalties as provided for in Section 309 of the Federal Water Pollution Control Act, as amended, and in Section 69-3-115 of the Tennessee Water Quality Control Act.

4. Outlier Data

Outlier data include analytical results that are probably false. The validity of results is based on operational knowledge and a properly implemented quality assurance program. False results may include laboratory artifacts, potential sample tampering, broken or suspect sample containers, sample contamination or similar demonstrated quality control flaw.

Outlier data are identified through a properly implemented quality assurance program, and according to ASTM standards (e.g. Grubbs Test, 'h' and 'k' statistics). Furthermore, outliers should be verified, corrected, or removed, based on further inquiries into the matter. If an outlier was verified (through repeated testing and/or analysis), it should remain in the preliminary data

set. If an outlier resulted from a transcription or similar clerical error, it should be corrected and subsequently reported.

Therefore, only if an outlier was associated with problems in the collection or analysis of the samples and as such does not conform with the Guidelines Establishing Test Procedures for the Analysis of Pollutants (40 CFR §136), it can be removed from the data set and not reported on the Discharge Monitoring Report forms (DMRs). Otherwise, all results (including monitoring of pollutants more frequently than required at the location(s) designated, using approved analytical methods as specified in the permit) should be included in the calculation and reporting of the values required in the DMR form. You are encouraged to use “comment” section of the DMR form (or attach additional pages), in order to explain any potential outliers or dubious results.

F. SCHEDULE OF COMPLIANCE

Full compliance and operational levels shall be attained from the effective date of this permit.

PART II

A. GENERAL PROVISIONS

1. Duty to Reapply

Permittee is not authorized to discharge after the expiration date of this permit. In order to receive authorization to discharge beyond the expiration date, the permittee shall submit such information and forms as are required to the Director of the Division of Water Resources (the "Director") no later than 180 days prior to the expiration date. Such applications must be properly signed and certified.

2. Right of Entry

The permittee shall allow the Director, the Regional Administrator of the U.S. Environmental Protection Agency, or their authorized representatives, upon the presentation of credentials:

a. To enter upon the permittee's premises where an effluent source is located or where records are required to be kept under the terms and conditions of this permit, and at reasonable times to copy these records;

b. To inspect at reasonable times any monitoring equipment or method or any collection, treatment, pollution management, or discharge facilities required under this permit; and

c. To sample at reasonable times any discharge of pollutants.

3. Availability of Reports

Except for data determined to be confidential under Section 308 of the Federal Water Pollution Control Act, as amended, all reports prepared in accordance with the terms of this permit shall be available for public inspection at the offices of the Division of Water Resources. As required by the Federal Act, effluent data shall not be considered confidential.

4. Proper Operation and Maintenance

a. The permittee shall at all times properly operate and maintain all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance also includes adequate laboratory and process controls and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems, which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit. Backup continuous pH and flow monitoring equipment are not required.

b. Dilution water shall not be added to comply with effluent requirements to achieve BCT, BPT, BAT and/or other technology-based effluent limitations such as those in State of Tennessee Rule 1200-4-5-.09.

5. Treatment Facility Failure

The permittee, in order to maintain compliance with this permit, shall control production, all discharges, or both, upon reduction, loss, or failure of the treatment facility, until the facility is restored or an alternative method of treatment is provided. This requirement applies in such situations as the reduction, loss, or failure of the primary source of power.

6. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations.

7. Severability

The provisions of this permit are severable. If any provision of this permit due to any circumstance, is held invalid, then the application of such provision to other circumstances and to the remainder of this permit shall not be affected thereby.

8. Other Information

If the permittee becomes aware that he failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, then he shall promptly submit such facts or information.

B. CHANGES AFFECTING THE PERMIT

1. Planned Changes

The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:

a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or

b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42(a)(1).

2. Permit Modification, Revocation, or Termination

a. This permit may be modified, revoked and reissued, or terminated for cause as described in 40 CFR 122.62 and 122.64, Federal Register, Volume 49, No. 188 (Wednesday, September 26, 1984), as amended.

b. The permittee shall furnish to the Director, within a reasonable time, any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

c. If any applicable effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established for any toxic pollutant under Section 307(a) of the Federal Water Pollution Control Act, as amended, the Director shall modify or revoke and reissue the permit to conform to the prohibition or to the effluent standard, providing that the effluent standard is more stringent than the limitation in the permit on the toxic pollutant. The permittee shall comply with these effluent standards or prohibitions within the time provided in the regulations that establish these standards or prohibitions, even if the permit has not yet been modified or revoked and reissued to incorporate the requirement.

d. The filing of a request by the permittee for a modification, revocation, reissuance, termination, or notification of planned changes or anticipated noncompliance does not halt any permit condition.

3. Change of Ownership

This permit may be transferred to another party (provided there are neither modifications to the facility or its operations, nor any other changes which might affect the permit limits and conditions contained in the permit) by the permittee if:

a. The permittee notifies the Director of the proposed transfer at least 30 days in advance of the proposed transfer date;

b. The notice includes a written agreement between the existing and new permittees containing a specified date for transfer of permit responsibility, coverage, and liability between them; and

c. The Director, within 30 days, does not notify the current permittee and the new permittee of his intent to modify, revoke or reissue, or terminate the permit and to require that a new application be filed rather than agreeing to the transfer of the permit.

Pursuant to the requirements of 40 CFR 122.61, concerning transfer of ownership, the permittee must provide the following information to the division in their formal notice of intent to transfer ownership: 1) the NPDES permit number of the subject permit; 2) the effective date of the proposed transfer; 3) the name and address of the transferor; 4) the name and address of the transferee; 5) the names of the responsible parties for both the transferor and transferee; 6) a statement that the transferee assumes responsibility for the subject NPDES permit; 7) a statement that the transferor relinquishes responsibility for the subject NPDES permit; 8) the

signatures of the responsible parties for both the transferor and transferee pursuant to the requirements of 40 CFR 122.22(a), “Signatories to permit applications”; and, 9) a statement regarding any proposed modifications to the facility, its operations, or any other changes which might affect the permit limits and conditions contained in the permit.

4. Change of Mailing Address

The permittee shall promptly provide to the Director written notice of any change of mailing address. In the absence of such notice the original address of the permittee will be assumed to be correct.

C. NONCOMPLIANCE

1. Effect of Noncompliance

All discharges shall be consistent with the terms and conditions of this permit. Any permit noncompliance constitutes a violation of applicable State and Federal laws and is grounds for enforcement action, permit termination, permit modification, or denial of permit reissuance.

2. Reporting of Noncompliance

a. 24-Hour Reporting

In the case of any noncompliance which could cause a threat to public drinking supplies, or any other discharge which could constitute a threat to human health or the environment, the required notice of non-compliance shall be provided to the Division of Water Resources in the appropriate regional Field Office within 24-hours from the time the permittee becomes aware of the circumstances. (The regional Field Office should be contacted for names and phone numbers of environmental response personnel).

A written submission must be provided within five calendar days of the time the permittee becomes aware of the circumstances, unless this requirement is waived by the Director on a case-by-case basis. The permittee shall provide the Director with the following information:

i. A description of the discharge and cause of noncompliance;

ii. The period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue; and

iii. The steps being taken to reduce, eliminate, and prevent recurrence of the noncomplying discharge.

b. Scheduled Reporting

For instances of noncompliance which are not reported under subparagraph 2.a. above, the permittee shall report the noncompliance on the Discharge Monitoring

Report. The report shall contain all information concerning the steps taken, or planned, to reduce, eliminate, and prevent recurrence of the violation and the anticipated time the violation is expected to continue.

3. Sanitary Sewer Overflow

a. "***Sanitary Sewer Overflow***" means the discharge to land or water of wastes from any portion of the collection, transmission, or treatment system other than through permitted outfalls.

b. Sanitary Sewer Overflows are prohibited.

c. The permittee shall operate the collection system so as to avoid sanitary sewer overflows. No new or additional flows shall be added upstream of any point in the collection system, which experiences chronic sanitary sewer overflows (greater than 5 events per year) or would otherwise overload any portion of the system.

d. Unless there is specific enforcement action to the contrary, the permittee is relieved of this requirement after: 1) an authorized representative of the Commissioner of the Department of Environment and Conservation has approved an engineering report and construction plans and specifications prepared in accordance with accepted engineering practices for correction of the problem; 2) the correction work is underway; and 3) the cumulative, peak-design, flows potentially added from new connections and line extensions upstream of any chronic overflow point are less than or proportional to the amount of inflow and infiltration removal documented upstream of that point. The inflow and infiltration reduction must be measured by the permittee using practices that are customary in the environmental engineering field and reported in an attachment to a Monthly Operating Report submitted to the regional TDEC Field Office. The data measurement period shall be sufficient to account for seasonal rainfall patterns and seasonal groundwater table elevations.

e. In the event that more than five (5) sanitary sewer overflows have occurred from a single point in the collection system for reasons that may not warrant the self-imposed moratorium or completion of the actions identified in this paragraph, the permittee may request a meeting with the Division of Water Resources field office staff to petition for a waiver based on mitigating evidence.

4. Upset

a. "***Upset***" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

b. An upset shall constitute an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

i. An upset occurred and that the permittee can identify the cause(s) of the upset;

ii. The permitted facility was at the time being operated in a prudent and workman-like manner and in compliance with proper operation and maintenance procedures;

iii. The permittee submitted information required under "Reporting of Noncompliance" within 24-hours of becoming aware of the upset (if this information is provided orally, a written submission must be provided within five days); and

iv. The permittee complied with any remedial measures required under "Adverse Impact."

5. Adverse Impact

The permittee shall take all reasonable steps to minimize any adverse impact to the waters of Tennessee resulting from noncompliance with this permit, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying discharge. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

6. Bypass

a. "***Bypass***" is the intentional diversion of wastewater away from any portion of a treatment facility. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities, which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.

b. Bypasses are prohibited unless the following 3 conditions are met:

i. The bypass is unavoidable to prevent loss of life, personal injury, or severe property damage;

ii. There are not feasible alternatives to bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment down-time. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass, which occurred during normal periods of equipment down-time or preventative maintenance;

iii. The permittee submits notice of an unanticipated bypass to the Division of Water Resources in the appropriate environmental assistance center within 24-hours of becoming aware of the bypass (if this information is provided orally, a written submission must be provided within five days). When the need for the bypass is foreseeable, prior notification shall be

submitted to the Director, if possible, at least 10 days before the date of the bypass.

c. Bypasses not exceeding limitations are allowed **only** if the bypass is necessary for essential maintenance to assure efficient operation. All other bypasses are prohibited. Allowable bypasses not exceeding limitations are not subject to the reporting requirements of 6.b.iii, above.

7. Washout

a. For domestic wastewater plants only, a "washout" shall be defined as loss of Mixed Liquor Suspended Solids (MLSS) of 30.00% or more. This refers to the MLSS in the aeration basin(s) only. This does not include MLSS decrease due to solids wasting to the sludge disposal system. A washout can be caused by improper operation or from peak flows due to infiltration and inflow.

b. A washout is prohibited. If a washout occurs the permittee must report the incident to the Division of Water Resources in the appropriate regional Field Office within 24-hours by telephone. A written submission must be provided within 5 days. The washout must be noted on the discharge monitoring report. Each day of a washout is a separate violation.

D. LIABILITIES

1. Civil and Criminal Liability

Except as provided in permit conditions for "**Bypass,**" "**Overflow,**" and "**Upset,**" nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for noncompliance. Notwithstanding this permit, the permittee shall remain liable for any damages sustained by the State of Tennessee, including but not limited to fish kills and losses of aquatic life and/or wildlife, as a result of the discharge of wastewater to any surface or subsurface waters. Additionally, notwithstanding this Permit, it shall be the responsibility of the permittee to conduct its wastewater treatment and/or discharge activities in a manner such that public or private nuisances or health hazards will not be created.

2. Liability Under State Law

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or the Federal Water Pollution Control Act, as amended.

PART III

OTHER REQUIREMENTS

A. TOXIC POLLUTANTS

The permittee shall notify the Division of Water Resources as soon as it knows or has reason to believe:

1. That any activity has occurred or will occur which would result in the discharge on a routine or frequent basis, of any toxic substance(s) (listed at 40 CFR 122, Appendix D, Table II and III) which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

    a. One hundred micrograms per liter (100 ug/l);

    b. Two hundred micrograms per liter (200 ug/l) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/l) for 2,4-dinitrophenol and for 2-methyl-4,6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;

    c. Five (5) times the maximum concentration value reported for that pollutant(s) in the permit application in accordance with 122.21(g)(7); or

    d. The level established by the Director in accordance with 122.44(f).

2. That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":

    a. Five hundred micrograms per liter (500 ug/l);

    b. One milligram per liter (1 mg/L) for antimony;

    c. Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with 122.21(g)(7); or

    d. The level established by the Director in accordance with 122.44(f).

B. REOPENER CLAUSE

If an applicable standard or limitation is promulgated under Sections 301(b)(2)(C) and (D), 304(B)(2), and 307(a)(2) and that effluent standard or limitation is more stringent than any effluent limitation in the permit or controls a pollutant not limited in the permit, the permit shall be promptly modified or revoked and reissued to conform to that effluent standard or limitation.

C. PLACEMENT OF SIGNS

Within sixty (60) days of the effective date of this permit, the permittee shall place and maintain a sign(s) at each outfall and any bypass/overflow point in the collection system. For the purposes of this requirement, any bypass/overflow point that has discharged five (5) or more times in the last year must be so posted. The sign(s) should be clearly visible to the public from the bank and the receiving stream or from the nearest public property/right-of-way, if applicable. The minimum sign size should be two feet by two feet (2' x 2') with one inch (1") letters. The sign should be made of durable material and have a white background with black letters.

The sign(s) are to provide notice to the public as to the nature of the discharge and, in the case of the permitted outfalls, that the discharge is regulated by the Tennessee Department of Environment and Conservation, Division of Water Resources. The following is given as an example of the minimal amount of information that must be included on the sign:

NON-CONTACT COOLING WATER DISCHARGE
Akzo Nobel Surface Chemistry LLC
(Permittee's Phone Number)
NPDES Permit NO. TN0002798
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Chattanooga

INDUSTRIAL STORM WATER RUNOFF
Akzo Nobel Surface Chemistry LLC
(Permittee's Phone Number)
NPDES Permit NO. TN0002798
TENNESSEE DIVISION OF WATER RESOURCES
1-888-891-8332 ENVIRONMENTAL FIELD OFFICE - Chattanooga

D. ANTIDEGRADATION

Pursuant to the Rules of the Tennessee Department of Environment and Conservation, Chapter 1200-4-3-.06, titled “Tennessee Antidegradation Statement,” which prohibits the degradation of exceptional Tennessee waters and the increased discharges of substances that cause or contribute to impairment, the permittee shall further be required, pursuant to the terms and conditions of this permit, to comply with the effluent limitations and schedules of compliance required to implement applicable water quality standards, to comply with a State Water Quality Plan or other state or federal laws or regulations, or where practicable, to comply with a standard permitting no discharge of pollutants.

E. BIOMONITORING REQUIREMENTS, CHRONIC

The permittee shall conduct a 3-Brood *Ceriodaphnia dubia* Survival and Reproduction Test and a 7-Day Fathead Minnow *(Pimephales promelas)* Larval Survival and Growth Test on the same samples of final effluent from Outfall 001.

The measured endpoint for toxicity will be the inhibition concentration causing 25% reduction (IC25) in survival, reproduction, or growth of the test organisms. The IC25 shall be determined based on a 25% reduction as compared to the controls. The average reproduction and growth responses will be determined based on the number of *Ceriodaphnia dubia* or *Pimephales promelas* larvae used to initiate the test.

Test shall be conducted and its results reported based on appropriate replicates of a total of five serial dilutions and a control, using the percent effluent dilutions as presented in the following table:

Serial Dilutions for Whole Effluent Toxicity (WET) Testing					
4 X PL	**2 X PL**	**Permit Limit (PL)**	**0.50 X PL**	**0.25 X PL**	**Control**
% effluent					
19.6	**9.8**	**4.9**	**2.5**	**1.23**	**0**

The dilution/control water used will be a moderately hard water as described in Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA-821-R-02-013 (or the most current edition). Results from a chronic standard reference toxicant quality assurance test for each species tested shall be submitted with the discharge monitoring report. Reference toxicant tests shall be conducted as required in EPA-821-R-02-013 (or the most current edition). Additionally, the analysis of this multi-concentration test shall include review of the concentration-response relationship to ensure that calculated test results are interpreted appropriately.

Toxicity will be demonstrated if the IC25 is less than or equal to the permit limit indicated for each outfall in the above table(s). Toxicity demonstrated by the tests specified herein constitutes a violation of this permit.

All tests will be conducted using a minimum of three 24-hour flow-proportionate composite samples of final effluent (e.g., collected on days 1, 3 and 5). If, in any control more than 20% of the test organisms die in 7 days, the test (control and effluent) is considered invalid and the test shall be repeated within 30 days of the date the initial test is invalidated. Furthermore, if the results do not meet the acceptability criteria of section 4.9.1, EPA-821-R-02-013 (or the most current edition), or if the required concentration-response review fails to yield a valid relationship per guidance contained in Method Guidance and Recommendations for Whole Effluent Toxicity (WET) Testing, EPA-821-B-00-004 (or the most current edition), that test shall be repeated. Any test initiated but terminated before completion must also be reported along with a complete explanation for the termination.

The toxicity tests specified herein shall be conducted annually (1/Year) for Outfall 001 and the first biomonitoring test shall be conducted within one year of the effective date of this permit.

In the event of a test failure, the permittee must start a follow-up test within 2 weeks and submit results from a follow-up test within 30 days from obtaining initial WET testing results. The follow-up test must be conducted using the same serial dilutions as presented in the corresponding table(s) above. **The follow-up test will not negate an initial failed test. In addition, the failure of a follow-up test will constitute a separate permit violation which must also be reported.**

In the event of 2 consecutive test failures or 3 test failures within a 12 month period for the same outfall, the permittee must initiate a Toxicity Identification Evaluation/Toxicity Reduction Evaluation (TIE/TRE) study within 30 days and so notify the division by letter. This notification shall include a schedule of activities for the initial investigation of that outfall. **During the term of the TIE/TRE study, the frequency of biomonitoring shall be once every three months.** Additionally, the permittee shall submit progress reports once every three months throughout the term of the TIE/TRE study. The toxicity must be reduced to allowable limits for that outfall within 2 years of initiation of the TIE/TRE study. Subsequent to the results obtained from the TIE/TRE studies, the permittee may request an extension of the TIE/TRE study period if necessary to conduct further analyses. The final determination of any extension period will be made at the discretion of the division.

The TIE/TRE study may be terminated at any time upon the completion and submission of 2 consecutive tests (for the same outfall) demonstrating compliance. Following the completion of TIE/TRE study, the frequency of monitoring will return to a regular schedule, as defined previously in this section as well in Part I of the permit. **During the course of the TIE/TRE study, the permittee will continue to conduct toxicity testing of the outfall being investigated at the frequency of once every three months but will not be required to perform follow-up tests for that outfall during the period of TIE/TRE study.**

Test procedures, quality assurance practices, determinations of effluent survival/reproduction and survival/growth values, and report formats will be made in accordance with Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA-821-R-02-013, or the most current edition.

Results of all tests, reference toxicant information, copies of raw data sheets, statistical analysis and chemical analyses shall be compiled in a report. The report will be written in accordance with Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms, EPA-821-R-02-013, or the most current edition.

Two copies of biomonitoring reports (including follow-up reports) shall be submitted to the division. One copy of the report shall be submitted along with the discharge monitoring report (DMR). The second copy shall be submitted to the local Division of Water Resources office address:

Environmental Field Office - Chattanooga
Division of Water Resources
540 McCallie Avenue, Suite 550
Chattanooga, TN 37402

PART IV

STORM WATER POLLUTION PREVENTION PLAN

The discharger will develop, document and maintain a storm water pollution prevention plan (SWPPP) pursuant to the requirements set forth in EPA guidance manuals titled “Storm Water Management for Industrial Activities, Developing Pollution Prevention Plans and Best Management Practices”, (EPA 832-R-92-006), September, 1992, and the “Summary Guidance”, (EPA 833-R-92-002), October, 1992. The plan shall be signed by either a principal executive officer of a corporation, the owner or proprietor of a sole proprietorship, or a partner or general partner of a partnership. The SWPPP developed and implemented shall be site specific to the permitted facility with regard to the general terms and conditions outlined in the guidance manuals cited herein, and, at a minimum, shall contain the following items:

A. POLLUTANT SOURCES AND PATHWAYS

1. A site map outlining the individual storm water drainage areas, existing structural control measures, surface water bodies, and sinkholes

2. A narrative description of significant materials (40 CFR 122.26) that are currently or in the past have been treated, stored, or disposed outside; materials management practices; existing structural and non-structural control measures to reduce pollutants; and a description of any storm water treatment

3. A list of significant spills and leaks of toxic or hazardous pollutants at the facility that have taken place after the effective date of the permit

4. A prediction of direction of flow and the possible pollutants associated with each area of the plant that generates storm water

5. A record of available sampling data describing pollutants in storm water discharges

B. STORM WATER MANAGEMENT CONTROLS

1. Formulate a pollution prevention team with named individuals who will develop the storm water pollution prevention plan and assist plant manager in its implementation.

2. Inventory types of materials handled and associated potential of release to storm water. Evaluate the following for potential pollutant contribution: loading and unloading operations, outdoor storage and manufacturing activities, dust or particulate generating processes, and on-site waste disposal practices. Consider toxicity of chemicals, quantity of chemicals, and history of leaks or spills of toxic or hazardous pollutants.

3. Design a preventive maintenance program including inspection and maintenance of storm water management devices and testing plant equipment and systems to uncover conditions, which could cause failures.

4. Maintain a clean, orderly facility.

5. Establish prevention and response procedures. Identify potential spill areas and drainage points. Specify material handling procedures and storage requirements. Identify spill cleanup procedures and provide to responsible personnel. Make available to responsible personnel the necessary equipment to implement cleanup at all times when the facility is in operation.

6. Include in the plan a narrative of traditional storm water management practices, i.e., other than those that control the source of pollutants.

7. Identify areas of potentially high soil erosion and measures to limit erosion.

8. Train employees at all levels of responsibility in the components of the storm water pollution prevention plan.

9. Identify qualified personnel to inspect equipment, plant areas, and material handling areas. Develop a tracking system to ensure corrective action and maintain records of inspections.

10. Designate a person in the plan who will keep records of spills or other discharges, inspections and maintenance activities, and information describing the quality and quantity of storm water discharges.

11. Identify any non-storm water discharges, and their source(s), associated with the storm water outfalls. In the event non-storm water discharges are discovered in combination with the storm water discharges, the permittee must submit the appropriate EPA form(s) for the characterization of these non-storm water discharges as warranted.

C. FACILITY INSPECTION

Responsible person(s) named in the plan will inspect the facility at least semi-annually for the accuracy of the plan and maps, adequate measures to reduce pollutants in storm water runoff, and the need for additional controls. Records of these inspections will be maintained for a period of three years.

D. SPILL PREVENTION CONTROL AND COUNTERMEASURES

Storm water management programs may reflect requirements for spill prevention control and countermeasures (SPCC) plans under section 311 of the CWA.

E. PLAN REVIEW AND UPDATE

The plan will be reviewed and updated, if necessary, by the facility at least annually. The plan and all records will be retained for at least three years after expiration of this permit.

F. PLAN IMPLEMENTATION

The plan should be developed and available for review within 30 days after permit coverage. Facilities should implement the management practices as soon as possible, but not later than one year after permit coverage. Where new construction is necessary to implement the management plan, a construction schedule should be included. Construction should be completed as soon as possible.

G. PLAN AVAILABILITY

The plan will be maintained by the discharger, on the site, or at a nearby office. Copies of the plan will be submitted to the Division of Water Resources within ten business days of any request.

H. PLAN MODIFICATION

The plan will be modified as required by the director of the Division of Water Resources.

I. MONITORING PLAN

The storm water discharges will be monitored as required in Part I. Section A., Effluent Limits and Monitoring Requirements, applicable to storm water outfalls. For each outfall monitored, the surface area and type of cover, for example, roof, pavement, grassy areas, gravel, will be identified.

J. SARA TITLE III, SECTION 313 PRIORITY CHEMICALS

The SWPPP shall include the following for those facilities subject to reporting requirements under SARA Title III, Section 313 for chemicals that are classified as Section 313 water priority chemicals:

1. In areas where Section 313 priority chemicals are stored, processed or otherwise handled, appropriate containment, drainage control and/or diversionary structures will be provided. At a minimum, one of the following preventive systems or its equivalent will be used:

a. Curbing, culverting, gutters, sewers or other forms of drainage control

b. Roofs, covers or other forms or protection to prevent storage piles from exposure to storm water and wind

2. The plan will include a discussion of measures taken to conform with the following applicable guidelines:

a. In liquid storage areas where storm water comes into contact with any equipment, tank container, or other vessel used for Section 313 water priority chemicals,

i. the tank or container must be compatible with Section 313 water priority chemical which it stores and

ii. the liquid storage areas shall be operated to minimize discharge of Section 313 chemicals.

b. Material storage areas for Section 313 water priority chemicals, other than liquids, will incorporate features that will minimize the discharge of Section 313 chemicals by reducing storm water contact.

c. Truck and rail car loading and unloading areas for Section 313 liquid chemicals will be operated to minimize discharges of chemicals. Appropriate measures may include placement and maintenance of drip pans for use when making and breaking hose connections; a spill contingency plan; and/or other equivalent measures.

d. In plant areas where Section 313 chemicals are transferred, processed or handled, piping, processing equipment, and materials handling equipment will be operated so as to minimize discharges of chemicals. Piping and equipment must be compatible with chemicals handled. Additional protection, including covers and guards to prevent exposure to wind, pressure relief vents, and overhangs or door skirts to enclose trailer ends at truck loading docks, will be implemented. Visual inspections or leak tests will be conducted on overhead piping that conveys Section 313 chemicals.

e. For discharges from areas covered by parts 2a, 2b, 2c, or 2d,

i. the drainage should be restrained by manually-operated valves or other positive means to prevent the discharge of a spill or excessive leakage,

ii. a flapper-type drain valves can not be used for drainage of containment units,

iii. the final discharge of in-facility storm sewers should be equipped with a diversion system that could, in the event of an uncontrolled spill of a Section 313 chemical, return the spilled material to the facility, and

iv. the records of the frequency and estimated volume (in gallons) of discharges from containment areas will be maintained.

f. Facility site runoff other than from areas covered by parts 2a, 2b, 2c, and 2d from which runoff could contain Section 313 chemicals will incorporate the necessary drainage or other control features to prevent discharge of spilled or improperly disposed material and to ensure the reduction of pollutants in runoff or leachate.

g. All areas of the facility will be inspected at specific intervals for leaks or conditions that could lead to discharges of Section 313 water priority chemicals or direct contact of storm water with raw materials, intermediate materials, waste materials or products. Inspection intervals shall be specified in the plan and shall be based on design and operations experience. Corrective action will be taken promptly when a leak or condition, which could cause significant releases of a chemical is discovered. If corrective action can't be taken immediately, the unit or process will be shut down until the situation is corrected. When a leak or spill has occurred, the contaminated material(s) must be promptly removed and disposed in accordance with Federal, State, and local requirements and as described in the plan.

h. Facilities will have the necessary security systems to prevent accidental or intentionally entry, which could cause a discharge.

i. Facility employees and contract personnel that work in areas where SARA title III, Section 313 water priority chemicals are used or stored will be trained in and informed of preventive measures at the facility. Employee training shall be conducted at least once per year in the pollution control laws and regulations and in the storm water pollution prevention plan. The plan shall designate a person who is accountable for spill prevention at the facility and who will set up the necessary spill emergency procedures and reporting requirements.

j. The SWPPP for a facility subject to SARA Title III, Section 313 requirements will be reviewed and certified by a professional engineer. The registered professional engineer will certify the plan every three years thereafter, or as soon as practical, after significant modifications are made to the facility. Certification will in no way relieve the owner or operator of a facility covered by the plan of their duty to prepare and fully implement such plan.

3. "Section 313 water priority chemicals" means the following chemicals or chemical categories:

a. listed at 40 CFR 372.65 pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986, also titled the Emergency Planning and Community Right-to-Know Act of 1986;

b. present at or above threshold levels at a facility subject to SARA Title III, Section 313 reporting requirements; and

c. meeting at least one of the following criteria:

i. listed in Appendix D of 40 CFR 122 on either Table II (organic priority pollutants), Table III (certain metals, cyanides, and phenols) or Table V (certain toxic pollutants and hazardous substances);

ii. listed as a hazardous substance pursuant to section 311(b)(2)(A) of the CWA at 40 CFR 116.4; or

iii. designated as pollutants for which EPA has published acute or chronic toxicity criteria.

JCM

TN0002798.DOC

RATIONALE

Akzo Nobel Surface Chemistry LLC
NPDES PERMIT NO. TN0002798
Chattanooga, Hamilton County, Tennessee

Permit Writer: Mr. Jim McAdoo

I. DISCHARGER

Akzo Nobel Surface Chemistry LLC
909 Mueller Drive
Chattanooga, Hamilton County, Tennessee
Site Longitude: -85.257778 Site Latitude: 35.085278

Official Contact Person:
Mr. Marco A.Salenda
(423) 629-1405

Nature of Business:
Plastics Material Synthetic Resins, and Nonvulcanizable Elastomers

SIC Code(s): 2821
Industrial Classification: Primary
Discharger Rating: Minor

PRIMARY INDUSTRY CATEGORY means any industry category listed in the NRDC Settlement Agreement (Natural Resources Defense Council v. Train, 8 ERC 2120 [D.D.C. 1976], modified 12 ERC 1833 [D.D.C. 1979]).

II. PERMIT STATUS

Issued April 30, 2010
Expired April 30, 2014
Application for renewal received August 04, 2009

Watershed Scheduling

Environmental Field Office: Chattanooga
Primary Outfall Latitude: 35.085278 Longitude: -85.257778
Hydrocode: 6020001 Watershed Group: 4
Watershed Identification: Tennessee River (Chattanooga Area)
Target Reissuance Year: 2019

III. FACILITY DISCHARGES AND RECEIVING WATERS

Akzo Nobel Surface Chemistry LLC discharges non contact cooling water from Outfall 001 and storm water runoff from Outfall SW1 to South Chickamauga Creek. Appendix 1 summarizes facility discharges and the receiving stream information.

A second storm water outfall, SW2, was identified on the renewal application. However, it was determined that this above mention outfall did not require permitting because:

- The pond and its associated outfall are a post construction hydrologic storm water discharge point and
- There is no industrial activity, at this time or in the foreseeable future (the next five years) in a new structure (PAM building) within this outfall's watershed.

IV. APPLICABLE EFFLUENT LIMITATIONS GUIDELINES

The Standard Industrial Classification (SIC) codes for Akzo Nobel Surface Chemistry LLC are 2821 (Plastics Material Synthetic Resins, and Nonvulcanizable Elastomers) and 2879 (. Pesticides and Agricultural Chemicals, NEC). There are no EPA effluent guidelines for the discharges from this facility. Standards of performance will be according to existing state regulations using available treatability information.

V. PREVIOUS PERMIT LIMITS AND MONITORING REQUIREMENTS

Appendix 2 lists the permit limitations and monitoring requirements as defined in the previous permit.

VI. HISTORICAL MONITORING AND INSPECTION

During the previous permit term, Akzo Nobel Surface Chemistry LLC did not have any appreciable difficulty in meeting effluent limitations as outlined in the previous permit. A summary of the data reported on Discharge Monitoring Report forms during the previous permit term is summarized in Appendix 3.

During the previous permit term, the Division’s personnel from the Chattanooga Environmental Field Office did not performed a Compliance Evaluation Inspection (CEI) of the Akzo Nobel Surface Chemistry LLC.

VII. NEW PERMIT LIMITS AND MONITORING REQUIREMENTS

The proposed new permit limits have been selected by determining a technology-based limit and evaluating if that limit protects the water quality of the receiving stream. If the technology-based limit would cause violations of water quality, the water quality-based limit is chosen. The technology-based limit is determined from EPA effluent limitations guidelines if applicable (see Part IV); or from State of Tennessee maximum effluent limits for effluent limited segments per Rule 0400-40-5-.08; or by way of operational and/or treatability data. Furthermore, effluent limitations in this permit must comply with any approved Total Maximum

Daily Load (TMDL) studies. Appendix 4 lists all proposed effluent limitations and monitoring requirements to be included in the new permit. Note that in general, the term “anti-backsliding” refers to a statutory provision that prohibits the renewal, reissuance, or modification of an existing NPDES permit that contains effluents limits, permit conditions, or standards that are less stringent than those established in the previous permit.

VIII. Parameters for Outfalls 001 and SW1

Outfalls 001

Flow

Monitoring of flow quantifies the load of pollutants to the stream. Flow shall be reported in Million Gallons per Day (MGD) and monitored at the time of sample collection.

pH

According to the State of Tennessee Water Quality Standards [Chapter 0400-40-3-.03(3)(b)], the pH for the protection of Fish and Aquatic Life shall lie within the range of 6.0 to 9.0 and shall not fluctuate more than 1.0 unit in this range over a period of 24-hours. Considering that the receiving stream will provide some buffering capacity, effluent limitation for pH will be retained in a range 6.0 to 9.0. The sample type will be grab. The sample frequency for Outfall 001 is monthly.

Effluent Temperature

Temperature will be limited according to the State of Tennessee Water Quality Standards for the protection of Fish & Aquatic Life [Chapter 0400-40-3-.03(3)(e)]. It is recognized that the temperature of the cooling water discharge will be greater than the temperature of the water prior to its use for cooling or other purposes. This discharge must not cause the temperature change in receiving stream to exceed 3°C relative to an upstream control point. Also, this discharge must not cause the temperature of receiving stream to exceed 30.5°C (except as a result of natural causes), and this discharge must not cause the maximum rate of temperature change in receiving stream to exceed 2°C per hour (except as a result of natural causes).

Considering that Outfall 001 discharges to a receiving stream with a large critical low flow proportional to the effluent flow rate, there is no reasonable potential of exceeding any applicable WQ criteria. Therefore, effluent temperature is monitored on "report only" basis on the Discharge Monitoring Reports (DMRs). Considering the reported temperature will be the one of the effluent, an exceedance of the above mentioned 30.5°C water quality criteria is not necessarily a permit violation. The 30.5°C value applies to the receiving stream, not the effluent. Therefore, if the effluent temperature exceeds 30.5°C, the permittee should note in the "comments" section of the DMR that this is the temperature of the effluent. A temperature check in the receiving stream below the discharge point may be performed in order to prove facility’s compliance with the Tennessee Water Quality Standards and should also be noted in the "comments" section of the DMR.

Outfall SW1

There are no effluent guidelines for storm water discharges from the Akzo Nobel Surface Chemistry LLC facility. The previous permit did not have effluent limitations for the facility's storm water runoff. All parameters were monitored on a "Report" only basis. Similarly, the new permit will not establish effluent limitations, but will require reporting of effluent characteristics at Outfalls SW1.

The division is not assigning limits for these parameters at this time since it is the intent of the division that the permittee maintain a Storm Water Pollution Prevention Plan (SWPPP) in order to minimize the discharge of these pollutants from storm water outfalls. It is the opinion of the division that the best method for dealing with potential pollution associated with storm water discharges from the Akzo Nobel Surface Chemistry LLC facility is through implementation of an aggressive SWPPP, coupled with discharge monitoring to verify SWPPP effectiveness. Monitoring of storm water runoff from Outfalls SW1 will be required for flow, chemical oxygen demand, total suspended solids (TSS), oil & grease, pH, total phosphorous, and total nitrogen on a semi- annual basis.

VIII. BIOMONITORING REQUIREMENTS, CHRONIC

The discharge of industrial wastewater from Outfall 001 may contain several different pollutants, the combined effect of which has a reasonable potential to be detrimental to fish and aquatic life. The Tennessee Water Quality Standards criteria stipulates that "*The waters shall not contain toxic substances, whether alone or in combination with other substances, which will produce toxic conditions...*".

Since the permittee discharges to a stream with low critical flow conditions, there is a concern for toxicity effects of the discharge on the receiving stream, which is relatively unknown. Biomonitoring will provide information relative to the toxicity of the discharge. Calculation of toxicity limits is as follows:

$$\text{Dilution Factor (DF)} = \frac{Qs + Qw}{Qw}$$

where **Qw** is a wastewater flow (Qw = 3.11 MGD) and **Qs** is a receiving stream low flow (7Q10, estimated at 60.3 MGD). Please refer to Appendix 1 for details regarding facility discharge and receiving stream. Therefore,

$$DF = \frac{60.3 + 3.11}{3.11} = 20.4$$

Since the calculated dilution factor is less than 100:1, and assuming immediate and complete mixing, protection of the stream from chronic effects requires:

$$IWC \leq 1.0 \text{ X } IC25; \text{ or,}$$

$$\text{INHIBITION CONCENTRATION, 25\%} \geq IWC$$

Where IWC is Instream Waste Concentration and is calculated using the following formula:

$$\text{Instream Waste Concentration (IWC)} = \frac{Qw}{Qs + Qw} \times 100$$

$$IWC = \frac{3.11}{60.3 + 3.11} \times 100 = 4.9$$

Therefore, WET testing will be required on 4.9% effluent. If toxicity is demonstrated in any of the effluent samples specified above, this will constitute a violation of this permit.

The toxicity tests specified herein shall be conducted annually (1/Year) for Outfall 001 and the first biomonitoring test shall be conducted within one year of the effective date of this permit.

IX. ANTIDEGRADATION

Tennessee's Antidegradation Statement is found in the Rules of the Tennessee Department of Environment and Conservation, Chapter 0400-40-3-.06. It is the purpose of Tennessee's standards to fully protect existing uses of all surface waters as established under the Act.

Stream determinations for this permit action are associated with the waterbody segment identified by the division as segment ID# TN06020001007_1000.

The division has made a water quality assessment of the receiving waters associated with the subject discharge(s) and has found the receiving stream to be neither an exceptional nor outstanding national resource water.

Additionally, this water does not support(s) Fish and Aquatic Life and Recreation designated uses due to Sedimentation/Siltation, Escherichia coli, Physical substrate habitat alterations and Phosphorus (Total). The discharge from Outfall 001 does not contain significant amounts of these effluent characteristics (consists only of noncontact cooling water). The division, therefore, considers the potential for degradation to the receiving stream from these discharges to be negligible.

TMDLs have been developed and approved for this waterbody segment on the following parameters and dates:

Parameter	TMDL Approval Date
Siltation	September 25, 2006
E.Coli	September 15, 2010

The proposed terms and conditions of this permit comply with the wasteload allocations of these TMDLs.

X. PERMIT DURATION

The proposed limitations meet the requirements of Section 301(b)(2)(A), (C), (D), (E), and (F) of the Clean Water Act as amended. It is the intent of the division to organize the future issuance and expiration of this particular permit such that other permits located in the same watershed and group within the State of Tennessee will be set for issuance and expiration at the same time. In order to meet the target reissuance date for the Tennessee River (Chattanooga Area) watershed and following the directives for the Watershed Management Program initiated in January, 1996, the permit will be issued to expire in 2019.

APPENDIX 1

FACILITY DISCHARGES AND RECEIVING WATERS

FACILITY DISCHARGES AND RECEIVING WATERS

OUTFALL 001	
LATITUDE	LONGITUDE
35.08528	-85.2578

FLOW (MGD)	DISCHARGE SOURCE
3.11	Non-contact cooling water
3.11	**TOTAL DISCHARGE**

RECEIVING STREAM DISCHARGE ROUTE			
South Chickamauga Creek at mile 0.6			
STREAM LOW FLOW (CFS) *	**7Q10**	**1Q10**	**30Q5**
	93.2	NA	##
(MGD)	60.3	NA	##

STREAM USE CLASSIFICATIONS (WATER QUALITY)				
FISH	RECREATION	IRRIGATION	LW&W	MESTIC
X	**X**	**X**	**X**	
INDUSTRIAL	NAVIGATION			
X				

Treatment: None

OUTFALL SW1	
LATITUDE	LONGITUDE
35.0875	-85.2583

FLOW (MGD)	DISCHARGE SOURCE
variable	Storm water runoff
Variable	**TOTAL DISCHARGE**

RECEIVING STREAM DISCHARGE ROUTE			
South Chickamauga Creek at mile 0.6			
STREAM LOW FLOW (CFS) *	**7Q10**	**1Q10**	**30Q5**
	93.2	NA	##
(MGD)	60.3	NA	##

STREAM USE CLASSIFICATIONS (WATER QUALITY)				
FISH	RECREATION	IRRIGATION	LW&W	MESTIC
X	**X**	**X**	**X**	
INDUSTRIAL	NAVIGATION			
X				

Treatment: Containment berms, trenches, sumps, drainage swales, sedimentation.

* Reference: *Streamflow -Characteristic Estimation Methods for Unregulated Streams of Tennessee*, George S. Law, Gary D. Tasker, and David E. Ladd. Scientific Investigations Report 2009-5159 prepared by the U.S. Geological Survey in Cooperation with the Tennessee Department of Environment and Conservation, pg. 134 .

APPENDIX 2

PREVIOUS PERMIT LIMITS AND MONITORING REQUIREMENTS

PERMIT LIMITS

OUTFALL 001
Non-contact Cooling Water

EFFLUENT CHARACTERISTIC	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
	AVG.CONC. (mg/l)	AVG.AMNT. (lb/day)	MAX.CONC. (mg/l)	MAX.AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE
FLOW	Report (MGD) *		Report (MGD) *		1/Month	Instantaneous
TEMPERATURE, Effluent	Report Effluent Temperature				1/Month	Grab
pH ***	Range 6.0 - 9.0				1/Month	Grab
IC25	Survival, Reproduction, & Growth in 4.7% Effluent				Annual	Composite ****

* Flow shall be reported in Million Gallons per Day (MGD).
*** pH analyses shall be performed within fifteen (15) minutes of sample collection.
**** See Part III for methodology.

PERMIT LIMITS

OUTFALL SW1
Storm Water Runoff

EFFLUENT CHARACTERISTIC	EFFLUENT LIMITATIONS				MONITORING REQUIREMENTS	
	MONTHLY		DAILY			
	AVG. CONC. (mg/l)	AVG. AMNT. (lb/day)	MAX. CONC. (mg/l)	MAX. AMNT. (lb/day)	MSRMNT. FRQNCY.	SAMPLE TYPE ****
FLOW	Report (MGD) *		Report (MGD) *		1/6 Months	Estimate
BOD5	Report		Report		1/6 Months	Grab
OIL & GREASE	Report		Report		1/6 Months	Grab
TOTAL KJELDAHL NITROGEN	Report		Report		1/6 Months	Grab
PHOSPHORUS, TOTAL	Report		Report		1/6 Months	Grab
TOTAL SUSPENDED SOLIDS (TSS)	Report		Report		1/6 Months	Grab
pH **	Report				1/6 Months	Grab

* The permittee shall provide the date and duration (in hours) of the qualifying storm event(s) sampled; rainfall measurements or estimates (in inches) of the storm event that generated the sampled runoff; the duration between the storm event sampled and the end of the previous measurable (greater than 0.1 inch rainfall) storm event; and an estimate of the total volume of the discharge sampled. Flow shall be reported in Million Gallons per Day (MGD).

** pH and TRC analyses shall be performed within fifteen (15) minutes of sample collection.
**** Grab samples shall be collected in the first 30 minutes of a storm event discharge.

APPENDIX 3

HISTORICAL MONITORING AND INSPECTION

TN0002798 **Outfall 001** **SW1**

Monitoring period	Flow MAvg	Flow DMax	pH Min	pH Max	Whole Effluent Toxicity (WET) Testing		Temperture	Flow DMax	COD MAvg	COD DMax	TSS Dmax	O&G DMax	Nitrogen, Total, DMax	Phosphorus, Total, DMax	pH Max
					Ceriodaphnia, Percent	Pimephales, Percent									
Permit limit	MGD	MGD	6.0	9.0			Report	MGD	Report	Report	Report	Report	Report	Report	Report
June-10	3.01	3.03	7.22	7.47			21								
July-10	3.064	3.064	6.9	7.45			26								
August-10	3.03	3.06	7.16	7.47			21								
September-10	2.96	3.06	7.13	7.38			21								
October-10	3.01	3.1	7.3	7.35	15.2	15.2	20								
November-10	2.82	2.93	7.3	7.45			20	0.661			14	1		28	8.5
December-10	2.58	2.79	7.25	7.3			18								
January-11	2.93	3.1	7.15	7.41			20								
February-11	2.13	2.92	7.11	7.48			21								
March-11	3.0289	3.099	7.15	7.4	15.2	15.2	17								
April-11	2.959	3.0994	7.34	7.48			17								
May-11	3.0994	3.0994	7.02	7.32			18	0.203	26	26	9	9	7	18	6.9
June-11	3.03	3.09	7.18	7.34			19								
July-11	2.99	3.09	7.18	7.4			22								
August-11	2.99	3.1	7.35	7.62			23								
September-11	3.099	3.099	7.33	7.65			24								
October-11	3.064	3.099	7.4	7.5	15.2	15.2	19								
November-11	2.89	3.09	7.45	7.54			19	0.022	90	90	11	3	0	3	9.1
December-11	2.88	2.92	7.5	7.6			18								
January-12	2.72	2.7866	7.33	7.7			18								
February-12	2.7866	2.7866	7.4	7.58			17								
March-12	2.651	2.924	7.35	7.51			17								
April-12	3	3.09	7.2	7.47			18								
May-12	3.099	3.099	7.15	7.38			19								
June-12	3.17	3.24	7.26	7.74			19								
July-12	3.24	3.24	7.23	7.81			19								
August-12	3.099	3.099	7.23	7.42			19								
September-12	3.099	3.099	7.05	7.5			19								
October-12	3.13	3.24	7.2	7.49	18.8	18.8	19								
November-12	3.099	3.099	6.92	7.61			19								

TN0002798 **Outfall 001** **SW1**

Monitoring period	Flow MAvg	Flow DMax	pH Min	pH Max	Whole Effluent Toxicity (WET) Testing		Temperture	Flow DMax	COD MAvg	COD DMax	TSS Dmax	O&G DMax	Nitrogen, Total, DMax	Phosphorus, Total, DMax	pH Max
					Ceriodaphnia, Percent	Pimephales, Percent									
Permit limit	MGD	MGD	6.0	9.0			Report	MGD	Report	Report	Report	Report	Report	Report	Report
December-12	3.028	3.099	7.04	7.4			19								
January-13	3.099	3.099	7.29	7.41			18								
February-13	3.099	3.099	7.36	7.49			18								
March-13	3.099	3.099	7.44	7.56			18								
April-13	3.099	3.099	7.1	7.53			18								
May-13	3.099	3.099	7	7.05			18								
June-13	3.099	3.099		7.23			18								
July-13	3.135	3.24	7.26	7.47			19								
August-13	3.099	3.099	7.33	7.44			19								
September-13	3.099	3.099	7.21	7.42			19								
October-13	2.45	3.09	7.31	7.35			19								
November-13	3.09	3.09	7.3	7.5	15.2	15.2	18								
December-13	3.099	3.099	7.36	7.38			18								
January-14	3.099	3.099	7.26	7.4			18								
February-14	3.099	3.099	7.2	7.35			18								
March-14	3.099	3.099	7.28	7.4			17								
April-14	3.099	3.099	7.21	7.38			17								

	Flow MAvg	Flow DMax	pH Min	pH Max	Whole Effluent Toxicity (WET) Testing		Temperture	Flow DMax	COD MAvg	COD DMax	TSS Dmax	O&G DMax	Nitrogen, Total, DMax	Phosphorus, Total, DMax	pH Max
Permit limit	MGD	MGD	6.0	9.0			Report	MGD	Report	Report	Report	Report	Report	Report	Report
Average	2.99	3.07	7.23	7.46	15.9	15.9	19.1	0.295	58.0	58.0	11.3	4.3	3.5	16.3	8.2
Minimum	NA	NA	6.90	NA	15.2	15.2	17	NA	NA	NA	NA	NA	NA	NA	NA
Maximum	3.240	3.240	NA	7.81	18.8	18.8	19	NA	NA	NA	NA	NA	NA	NA	NA
Exceedances	NA	NA	0	0	0	0	NA	NA	NA	NA	NA	NA	NA	NA	NA
Count	47	47	46	47	5	5	47	3	2	2	3	3	2	3	3

APPENDIX 4

New Permit Limits

Description : External Outfall, Number : 001, Monitoring : Effluent Gross, Season : All Year

Parameter	Qualifier	Value	Unit	Sample Type	Frequency	Statistical Base
Flow	Report	-	MGD	Instantaneous	Monthly	Daily Maximum
Flow	Report	-	MGD	Instantaneous	Monthly	Monthly Average
Temperature, water deg. C	Report	-	deg C	Grab	Monthly	Daily Maximum
pH	>	6	SU	Grab	Monthly	Minimum
pH	<	9	SU	Grab	Monthly	Maximum

Parameter	Qualifier	Value	Unit	Sample Type	Frequency	Statistical Base
IC25 Static Renewal 7 Day Chronic Ceriodaphnia	>=	4.9	%	Composite	Annual	Minimum
IC25 Static Renewal 7 Day Chronic Pimephales	>=	4.9	%	Composite	Annual	Minimum

Description : External Outfall, Number : SW1, Monitoring : Effluent Gross, Season : All Year

Parameter	Qualifier	Value	Unit	Sample Type	Frequency	Statistical Base
Flow	Report	-	MGD	Estimate	Semiannual	Daily Maximum
Nitrogen, total (as N)	Report	-	lb/d	Grab	Semiannual	Daily Maximum
Nitrogen, total (as N)	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Oil & Grease	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Oxygen demand, chem. (high level) (COD)	Report	-	lb/d	Grab	Semiannual	Daily Maximum
Oxygen demand, chem. (high level) (COD)	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Phosphorus, total (as P)	Report	-	mg/L	Grab	Semiannual	Daily Maximum
Total Suspended Solids (TSS)	Report	-	mg/L	Grab	Semiannual	Daily Maximum
pH	Report	-	SU	Grab	Semiannual	Maximum

JCM

TN0002798.do